

REMARKS

Summary of the Office Action

The title of the invention is allegedly not descriptive and a new title is required.

Claim 4 stands objected to because of minor informalities.

Claims 1-8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the Admitted Prior Art in view of U.S. Patent No. 2004/0137741 to Chebi et al.

Summary of the Response to the Office Action

Applicants have presented a new title of the invention, and amended claim 4 by adopting the Examiner's helpful suggestion. Claim 1 has been amended to more particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. New claims 8-20 have been added. Accordingly, claims 1-20 are pending for further consideration.

The Title

The title is allegedly not being descriptive. Applicants have presented a new the title. Applicants respectfully submit that the new title is clearly indicative of the invention to which the claims are directed.

The Specification

Paragraph [0039] of the specification has been amended to correct a typographical error.

Objection to Claim 4

Claim 4 stands objected to because of minor informalities. Applicants have amended claim 4 by adopting the Examiner's helpful suggestions. Thus, Applicants respectfully request that the objection to claim 4 be withdrawn.

All Claims Comply with 35 U.S.C. § 103

Claims 1-8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the alleged Admitted Prior Art in view of Chebi et al. Applicants respectfully traverse the rejection for at least the following reasons.

With regard to independent claim 1, as newly-amended, Applicants respectfully submit that the Admitted Prior Art and Chebi et al., whether taken separately or in combination, do not teach or suggest a claimed combination including at least a feature of "injecting inert gas into the chamber containing the dummy substrate to eliminate a process byproduct and a remaining gas from the chamber."

The Office Action appears to allege that the Admitted Prior Art discloses all of the features of the instant application except for "injecting helium inert gas into the chamber to eliminate a process byproduct and a remaining gas," but relies upon Chebi et al. to teach the inert

gas including helium gas (He) by citing to paragraphs [0034] and [0041]. Then, the Office Action goes on to allege that “it would have been obvious to a person of ordinary skill in the requisite art at the time of the invention was made would injecting helium inert gas into the chamber to eliminate a process by product and a remaining gas in process of the Admitted Prior art as taught by Chebi et al. because the process would reduce contamination on the semiconductor substrate.”

Applicants respectfully disagree that this rejection is not applicable to newly-amended independent claim 1. Applicants respectfully submit that the alleged Admitted Prior Art and Chebi et al., either separately or combined, do not teach or suggest “injecting inert gas into the chamber containing the dummy substrate to eliminate a process byproduct and a remaining gas from the chamber,” as defined by newly-amended independent claim 1.

In contrast to the claimed invention, Chebi et al. merely discloses the employment of inert gas to purge a real substrate. For example, a real substrate is inserted into the vacuum chamber in Chebi et al. and a heating process is performed to remove foreign materials from the real substrate. Further, Chebi et al. discloses using an inert gas for blowing the foreign materials off of the real substrate. Thus, the inert gas of Chebi et al. is only utilized for directly cleaning a real substrate rather than the chamber, much less a chamber with a dummy substrate. Accordingly, Applicants respectfully submit that Chebi et al. does not discloses the use of inert gas in a chamber containing a dummy substrate to clean the chamber (or to cool the chamber).

For at least the forgoing reasons, Applicants respectfully assert that the Admitted Prior Art and Chebi et al., whether taken separately or in combination, do not teach or suggest the

claimed combination including at least the feature of “injecting inert gas into the chamber containing the dummy substrate to eliminate a process byproduct and a remaining gas from the chamber,” as recited by newly-amended independent claim 1. Accordingly, Applicants respectfully submit that independent claim 1 is in condition for allowance. MPEP § 2143.03 instructs that “[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 409 F.2d 981, 180 USPQ 580 (CCPA 1974).” Withdrawal of the rejection of independent claim 1 under 35 U.S.C. §103(a) is thus respectfully requested. Claims 2-7 are also in condition for allowance at least because of their dependencies on claim 1 and for the additional features that they recite.

Applicants respectfully submit the new claims 9-20 are at least allowable because none of the cited prior art of record teaches or suggests, amongst other features, flowing inert gas through the chamber containing a dummy substrate or cooling the chamber containing the dummy substrate with an inert gas.

Applicants respectfully submit that claims 1-20 are now in condition for allowance.

Conclusions

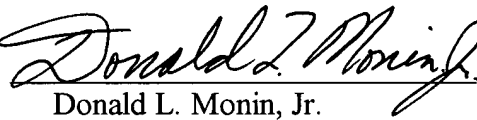
In view of the foregoing, Applicants earnestly solicit the issuance of a Notice of Allowability. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants’ undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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